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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,943	03/29/2007	Jan Zimmermann	ZIMMERMANN3	3059
1444 7590 10/13/2009 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			EXAMINER XU, LING X	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 10/13/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,943	<b>Applicant(s)</b> ZIMMERMANN ET AL.	
	<b>Examiner</b> Ling Xu	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-10 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/29/2007</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group II, claims 3-10 and 13-15, in the reply filed on 7/16/2009 is acknowledged. The traversal is on the ground(s) that the one or more of the same corresponding technical features which define over the prior art is/are not simply a composition comprising at least one compound of Formula I as recited in claim 1 as stated in the Office Action. Other factors include the proviso at the end of claim 1, the presence of the second compound of Formula II for at least some of the claims, and the coating requirement. Moreover, even if broader presently pending claims do not define a contribution over the prior art, there is no evidence that narrower claims which span all three groups and constitute one or more of the same corresponding technical features does/do define a contribution over the prior art.

Applicant's traversal is not found persuasive because, according to MPEP§1850(I), unity of invention has to be considered in the first place only in relation to the independent claims in an international application and not the dependent claims. In addition, the proviso recited at the end of claim 1 is considered indefinite and does not appear to further limit the subject matter which is already recited in claim 1. For example, in the proviso at the end of claim 1, the n and m have the same limitations as the n and m recited before the proviso in line 23 of claim 1. The X recited in line 25 of claim 1 lacks antecedent basis. Furthermore, the second compound of Formula II

Art Unit: 1794

formula II recited in claim 1 is optional. Accordingly, the requirement is still deemed proper and is therefore made FINAL.

Claims 1-2 and 11-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/16/2009.

### ***Specification***

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a

Art Unit: 1794

nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities:

The brief description of the drawings is missing in the specification. Several abbreviations used in the specification, such as AFM, MPPS, ABCR, XPS, SEM, and TEM, are not defined in the specification. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-10 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Although claim 1 has been withdrawn from further consideration, claims 3-10 and 13-15 depend on claim 1 and include all the limitations of claim 1. Some of the limitations of claim 1 are considered indefinite, which renders claim 3-10 and 13-15 indefinite.

In claim 1, line 16, the term "lower alkyl group" is a relative term which renders the claim indefinite. The term "lower" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Art Unit: 1794

In claim 1, line 20, it is unclear if the hydrolysable group includes halogen and alkoxy groups. In the proviso at the end of claim 1, the n and m have the same limitations as the n and m recited before the proviso in line 23 of claim 1. The X recited in line 25 of claim 1 lacks antecedent basis.

In claim 6, it is unclear if the term "very short" means nearly spherical bases. The terms "very short" and "nearly" are relative terms which render the claim indefinite. These terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 9, it is unclear if the "mean layer thickness" is referred to that the layer thickness is not uniformed.

In claim 10, it is unclear if the "and" between the material and polymer should be --or--.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3-5, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Barber, Jr. (US 5,849,052).

Regarding claims 3-5, Barber discloses an abrasive filament article comprising: (a) a first elongate filament component comprised of a first hardened organic polymeric material; and (b) a second elongate filament component comprised of a second hardened organic polymeric material, and at least one of the first and second hardened organic polymeric materials comprises a polysiloxane (col. 39, claim 5).

It should be noted that claims 3-5 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

In this case, according to the specification of the present application, the claimed coating formed of the composition recited in claim 1 is a polysiloxane coating, see line 3 on page 4 of the specification. Accordingly, Barber discloses the filament article comprising the same polysiloxane coating as claimed. Barber anticipates the claimed product limitations even though the product disclosed by Barber may be made by a different process.

Regarding claims 10 and 13, Barber discloses that the substrate can be metal, glass, ceramics, or polymers (col. 13, lines 1-10). The substrate can also be polyester fibers used for textile (col. 13, lines 60-67).

5. Claims 3-5, 7-8, 10, and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa (US 2001/0005531).

Regarding claims 3-5 and 7, Ogawa discloses a glass plate comprising at least alkoxysilane surface active agent fixed to the surface of the glass plate and forming an ultra thin protecting film (page 6, [0083]) with a thickness of between 4-7nm (page 8, [0127], [0133], [0141]). [0133]). The substrate can also be a paper forming hydrophilic polysiloxane coating film having thickness of approximately 4 nm on the paper surface (fiber surface, filaments) (page 8, [0133]).

It should be noted that claims 3-5 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, according to the specification of the present application, the claimed coating formed of the composition recited in claim 1 is a polysioxane coating, see line 3 on page 4 of the specification. Accordingly, Ogawa discloses the glass plate comprising the same polysioxane coating as claimed. Ogawa



Art Unit: 1794

anticipates the claimed product limitations even through the product disclosed by Ogawa may be made by a different process.

Regarding claims 8, 10 and 13-14, Ogawa discloses that the substrate can be metal, ceramic, fiber fabric or leather, or glass device such as beaker, reactor vessel, test tube, and flask (page 4, [0042]-[0046]). The coating can also be high in transparency (page 1, [0004]).

6. Claims 3-5, 10 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Flugge et al. (US 2004/0086727).

Flugge discloses a tissue sheet comprises paper making fibers and a polysiloxane composition (abstract and page 2, [0016]).

It should be noted that claims 3-5 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, according to the specification of the present application, the claimed coating formed of the composition recited in claim 1 is a polysiloxane coating, see line 3 on page 4 of the specification. Accordingly, Flugge discloses the tissue sheet comprising the same polysiloxane coating as claimed. Flugge

Art Unit: 1794

anticipates the claimed product limitations even through the product disclosed by Flugge may be made by a different process.

***Allowable Subject Matter***

7. Claims 6 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling Xu whose telephone number is 571-272-7414. The examiner can normally be reached on 8:00 am- 4:30 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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October 7, 2009